

Morphological and Semantic Agreement beyond Hybrid Nouns

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Intro: Previous work on morphological and semantic agreement is restricted in hybrid nouns like *mädchen* in German, *vrač* in Russian, and *committee* in varieties of English. Non-hybrid nouns are assumed to have both morphological and semantic features by extension and not with empirical evidence. This paper teases apart the ‘morphological and semantic features on the garden variety non-hybrid nouns. We show that in multi-valuation configurations in (1), non-hybrid nouns can trigger different agreement patterns and we argue that these patterns result from agreeing with the morphological and the semantic features of non-hybrid nouns.

(1) John’s proud that Mary, and Bill’s glad that Sue, has/have been to China. (Grosz 2015)

Background: Morphological and semantic agreement has been observed on hybrid nouns. For example, the *committee* nouns in certain varieties of English can control either singular or plural agreement on the verb as in (2). The singular agreement is compatible with the singular morphological marking of the subject thus is labeled as *morphological agreement* (see Corbett 1979, 2006 among others). The plural agreement is compatible with the plural semantic reference of the subject, thus is labeled as *semantic agreement*. It has been argued that morphological agreement results from agreement with morphological features and semantic agreement results from agreement with semantic features. They are labeled CONCORD and INDEX features in LFG and HPSG (Wechsler & Zlatić 2003) and *interpretable* and *uninterpretable* features in Minimalist Program (Smith 2015; Landau 2016). We represent them as iF (interpretable) and uF (uninterpretable). The *committee* nouns are argued to have uF:SG and iF:PL. The T head agrees with the uF:SG in (2a) and with its iF:PL in (2b).

- (2) The committee has/have gathered.
- The committee_[uF:SG, iF:PL] has_[SG] gathered.
 - The committee_[uF:SG, iF:PL] have_[PL] gathered.

The hybrid noun agreement patterns in (2) have been used as evidence for the dual feature system where nouns contain two sets of features. By extension, the non-hybrid nouns are also assumed to have both iF and uF. The iF and uF on these nouns are of the same value e.g. *the book*_[uF:SG, iF:SG], however, no evidence has been put forward to argue the existence of both the iF and uF on the non-hybrid nouns since the agreement on the verb in *The book*_[uF:SG, iF:SG] *is*_[SG] *long* can not tease the two apart.

Multi-valuation: We provide evidence from multi-valuation constructions to show that non-hybrid nouns also have iF and uF. Multi-valuation refers to constructions where one probe simultaneously agrees with multiple goals and thus receives multiple values. Grosz (2009, 2015); Kluck (2009) propose that the TP RNR construction in (3) involves the T head *has/have* agreeing with both the embedded subjects *Mary* and *Sue*. In English (3), Western Armenian, Italian, and Hebrew, the T can show either singular or plural agreement. In languages including Greek, Croatian, and Dutch, the T must show singular agreement.

- (3) a. John’s proud that Mary_[SG], and Bill’s glad that Sue_[SG], has_[SG] been to China. (ok in Dutch)
b. John’s proud that Mary_[SG], and Bill’s glad that Sue_[SG], have_[PL] been to China. (* in Dutch)

The multi-valuation analysis of (3) is based on a multi-dominance structure where the T is structurally shared. One obvious alternative analysis for (3a) is ellipsis where the *has been to China* is deleted in the first conjunct. Both Grosz (2009); Kluck (2009) provided arguments against the ellipsis analysis. Larson (2012) also shows that this embedded-subject-stranding type of ellipsis is banned. The ellipsis analysis predicts that the sloppy reading on the possessive pronoun in (4) to be available, contrary to the fact. Note that (4) does not involve overt morphological agreement on the shared T, indicating that the ellipsis analysis is untenable regardless of agreement. We take this as evidence that both agreement patterns in (3) involves multi-valuation.

- (4) *Alice is happy that **Iris** can spell ~~her~~ name, and Claire is proud that **Daniel**, can spell **his** name.
(Larson 2012: 13)

Proposal: We propose that the singular agreement in (3a) results from morphological agreement and the plural agreement on multi-valued T in (3b) is the result of semantic agreement. English among other languages allow both morphological and semantic agreement on the multi-valued T while languages like Dutch only allow morphological agreement. We provide three arguments for the alignment. First, as is with the hybrid noun agreement, the singular on multi-valued Ts matches with the morphological marking on each of the goal: *Mary* and *Sue* in (3a) while the plural in (3b) matches with the semantic reference of the embedded subjects (*Mary* + *Sue* = PL). This is further supported by Yatabe (2003)'s observation: when the two goals have the same reference, the plural agreement becomes unavailable even in English as is in (5).

- (5) The pilot claimed that his mother₁ and the sailer claimed that his wife₁, has/*have traveled to China.

Second, the sensitivity to references of semantic agreement is also shown in multi-valuation in disjunction. Belk & Neeleman (2018) observe that when the TP RNR is connected by disjunction in (6), the plural agreement in English become unavailable. This again indicates that the plural marking on the multi-valued Ts is sensitive to the reference.

- (6) Either John's proud that Mary, or Bill's glad that Sue, has/*have been to China.

The third argument involves repair strategies applied when the multi-valued T agrees with one singular and one plural subject. In the English type languages, the T is spelled out as plural regardless of the order of the mismatching subjects as in (7). This is expected if the plural marking results from semantic agreement: the singular value and the plural value on the T gets resolved to plural, the same way that two singular values get resolved in (3b).

- (7) a. John's proud that Mary_[iF:SG], and Bill's glad that the twins_[iF:PL], have_[iF:SG+PL] been to ...
b. Bill's glad that the twins_[iF:PL], and John's proud that Mary_[iF:SG], have_[iF:PL+SG] been to ...

On the other hand, languages that only allow morphological agreement show closest conjunct agreement (CCA) in the mismatching case. Kluck (2009) reports experimental data in Dutch that the multi-valued T agrees with the subject in the second conjunct as in (8). Due to its sensitivity to the linear order, CCA has been argued to be an operation in the PF where morphological agreement takes place (Bhatt & Walkow 2013). Corbett (1979) also proposes that CCA is a resolution for mismatches in morphological agreement. We take this as evidence that the multi-valued Ts in languages like Dutch involve morphological agreement.

- (8) Anna beweerde dat **wij**, maar Steven zei dat **jjj**, het gas aan **had** laten staan.
Anna claimed that **1PL** but Steven said that **2SG**, the gas on **have.sg** let stand
'Anna claimed that we left the gas open, but Steven said that you left the gas open.' (Kluck 2009)

Conclusion: Based on the arguments above, we conclude that the singular agreement on multi-valued Ts results from morphological agreement and the plural agreement results from semantic agreement. Data from multi-valuation thus provide novel evidence that non-hybrid nouns also have iF and uF just like hybrid nouns. We will extend this analysis to the multi-valued Ns which show similar patterns as multi-valued Ts and argue for uF and iF on the NUM head.

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